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Reports the results of a questionnaire distributed to 14 schools of public health. The purpose of the study was to identify trends in areas of administration, physical plant, finances, admissions, students, faculty, and curriculum of the reporting institutions. Most of the data are organized into tables. One series of tables provides a detailed comparative study of faculty: titles, age, sex, teaching subjects, and professional category. Also reports on postgraduate or refresher courses conducted on a short-term basis.

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Schools of Public Health in the United States and Canada, for the year ending June 1962

James L. Troupin, M.D.

		page
I.	INTRODUCTION	1
II.	ADMINISTRATION	2
III.	PHYSICAL PLANT	5
IV.	FINANCES	7
V.	FACULTY	9
VI.	CURRICULUM	15
VII.	STUDENTS	17
VIII.	CONTINUATION EDUCATION	30
IX.	SUMMARY AND COMMENTS	31

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Schools of Public Health in the United States and Canada, for the year ending June 1962

James L. Troupin, M.D.

I. INTRODUCTION

This is the third* annual report dealing with certain features and activities of the Schools of Public Health of the United States and Canada. If there are any trends in development of these features or in changes in these activities, some signs should by now be in evidence. Comments on such trends are made as appropriate.

It should be emphasized that this paper is not only about the schools; it is by the schools. Only through the generous cooperation of each institution has it been possible to assemble the data which are presented here. The schools have filled out a general questionnaire (at the end of each academic year) in addition to supplying information on Faculty members and Students.

The general questionnaire asks for information on organization, library facilities, finances, admission of students, course offerings, field training, and continuation education. In addition, a list of all graduates receiving their diplomas during the current year (July 1 to June 30) is requested, and an "open end" question asks for comments on any points that seem important to the Dean. The resulting replies have been summarized, and form a large, though scattered, part of this paper.

Data on Faculty members are derived from a permanent roster on individual IBM cards in the A.P.H.A. headquarters. An annual listing is prepared from this roster (by subjects and titles) and each school is asked to make corrections on its list. The IBM cards are then modified accordingly and the tabulations made therefrom.

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* The first was published in the Am.J.ofP.H., vol.50, no.11, p.1770, (Nov.) 1960. The second appeared in mimeographed form as Document No. CPE-612.4, (Oct.) 1961.

Student census cards are filed at the time of registration. Each student fills out a card giving facts about sex, age, state or province or country, prior degrees, sponsorship, major subject, and professional category. The school of public health adds the degree for which the student is registered, and all the information is transferred to IBM cards when the student census cards are received in A.P.H.A. headquarters. When the graduation lists are received in the spring or summer, the cards are processed accordingly, and tabulations of graduates then made.

A word regarding extrapolation of data is in order. The figures in this report are affected by policy decisions in a number of places, such as University administrations, Government offices, and the like, and in this sense may be thought of as "controllable", in contrast to vital statistics which are much less so. In other words, a decision to discontinue the admission of a certain category of student made by one or more schools would affect the data on graduates, or the availability of additional large sums of money for training purposes would likewise modify a number of figures in a report such as this. The forecast of future trends, therefore, should be approached with some caution.

II. ADMINISTRATION

The pattern of administrative position of schools of public health has remained unchanged. Each is part of a University, which feature is in contrast with some schools in other countries, where such an institution may be owned and operated by a Ministry of Health. Of the fourteen schools in the United States and Canada, three are part of the medical school and the Director of the School of Public Health is responsible to the Dean of the Medical School. In the other eleven instances, the Director of the School of Public Health is responsible to the President of the University or one of the other central administrators, such as Vice-President, Chancellor, Vice-Chancellor, etc. - and in one University directly to the Board of Governors. Four of these eleven schools are related administratively to other schools of the health professions under a co-ordinator of health affairs.

Each school is organized into a number of major teaching and research units (called departments or divisions) ranging from three to fourteen, with an average of 8.2 per school. This distribution is shown in Table 1a. This wide range may be explained by the fact that in some institutions a major unit is divided into a number of other groups, each corresponding to what is a department in another school. While there is a considerable element of an administrator's individual preference in how many units a school has (and what responsibilities are assigned to each), the pattern of organization reflects to a great extent the emphasis that a school places upon certain topics. This remains a matter for each institution to examine in accordance with its own lights.

Table 1a--Organizational Units in Schools of Public Health
1961-1962

Number of Departments (or Divisions)	Number of Schools with each
3	1
5	1
6	2
7	2
8	2
9	1
10	2
11	2
14	1
	14

* * * * * * * * *

The 115 major units are distributed among their various titles as shown in Table 1b. In addition, two schools have listed "Library" as a major unit, but these have been omitted from the above. In the few instances where departments in another school have been reported as "jointly used for teaching purposes", they were not counted, since we are here concerned with an administrative breakdown of the components of the public health institution, not a picture of subjects taught or faculty used for teaching. Similarly, the designation of a subject as a major unit in only a few schools does not mean it is not taught in all of them, merely that there is administrative variation.

One point of interest is that of Continuation Education, which is the only major unit dealing with a means of performing a function rather than, as in all the others, with the substance of a body of knowledge.

Table 1b--Major Organizational Units in Schools of Public Health, 1961-1962

Community Health Services (1); Health Administration (1); Public Health (1); Public Health Administration (6); Public Health Practice (4)	13
Biometry (1); Biostatistics (11)	12
Environmental Health (4); Environmental Hygiene (2); Public Health Engineering*(1); Sanitary Engineering (3); Sanitary Science*(2)	12
Epidemiology	11
Industrial Health (1), Industrial Hygiene (2); Industrial Hygiene and Air Pollution (1); Occupational Health (2); Occupational Medicine (1)	7
Parasitology**(4); Pathobiology (1); Tropical Medicine**(1); Tropical Public Health (1)	7
Health Education (3); Public Health Education (3)	6
Maternal and Child Health	5
Medical Technology (1); Microbiology (3); Public Health Laboratory (1)	5
Nutrition (3); Public Health Nutrition (2)	5
Public Health Nursing (4); Public Health Nursing Administration (1)	5
Hospital Administration	4
Community Psychiatry (1); Mental Health (1); Mental Hygiene (1)	3
Health and Physical Education and Recreation (1); Individual and Community Health (1); Personal Health (1)	3
Physiological Hygiene (2); Physiology (1)	3
Biometry and Epidemiology (1); Epidemiology and Biometrics (1)	2
Continuation Education	2
Biochemistry	1
Biochemistry and Nutrition	1
Chronic Diseases	1
Environmental Medicine	1
Epidemiology and Microbiology	1
Health Development	1
Medical Care Administration	1
Public Health and Medical Administration	1
Radiological Science	1
Social Welfare	1
	115

* One school has a Department of Public Health Engineering and also a Department of Sanitary Science. Both are counted here.

** One school has a Department of Parasitology and also a Department of Tropical Medicine. Both are counted here.

The question of nomenclature deserves some attention, so that: (a) the designation of an organizational unit should indicate accurately its functions and responsibilities; and (b) a degree of consistency may be attained. In several instances, four or five names are used for what is essentially the same thing. The figures in parentheses in Table 1b. indicate the number of times each title is used, so that a measure of "popularity" may thus be noted. While there is no question about an institution's prerogatives in choosing the names it wishes, one can hope that a few slight changes will be made in the interest of uniformity.

Another organizational feature relates to the existence of an academic council or executive committee, composed usually of heads of departments, which has as its function advice to the Director in policy matters. The size and extent of authority of such a group varies widely among the schools of public health. In addition, the schools have special function committees - with variable composition. Among these are: Admissions; Curriculum; Library; Student Welfare; etc.

III. PHYSICAL PLANT

In the past year there has been an acceleration of building programs in schools of public health, with seven of the fourteen schools planning or actually beginning new construction. In several instances this represents the acquisition of a new building to be occupied by the school of public health alone or in partnership with a research establishment. Four other schools already occupy their own buildings, while the remaining three are located in premises which are assigned by, and shared with, the medical school. In practically every case, regardless of its other arrangements, the schools of public health are short of space and have resorted to the use of rented quarters for some of their expanded activities.

A summary of the number of square feet of space in each school of public health is shown in Table 2. The range extends from 15,000 to 167,000, with an average of approximately 56,350. This represents an increase over last year's average figure of 53,860, due in large measure to the increased use of supplemental rented premises by many schools.

Table 2--Schools of Public Health: 1961-1962

Number of square feet of space

Square feet	No. of schools
25,000 and under	3
26,000 to 50,000	6
50,000 to 75,000	2
75,000 to 100,000	0
over 100,000	3
	14

* * * * * * *

In nine of the schools there is a reading room or library, and in some cases there are departmental libraries available for use of the students. These collections have an average number of volumes in excess of 10,000 and of periodicals about 300 titles. This is an increase of about 10% and 30% respectively over last year's figures.

The medical school library is located on the same campus in twelve instances, and represents an additional facility to which faculty and students have access, though the proportion of public health and related literature in these collections is difficult to assess. These schools report an average of about 188,000 volumes and 2,500 periodicals. The latter is an increase of 50% over last year, while the former is about the same.

In addition, eight schools report that the general university library, with an average of almost two million volumes and periodicals, is located on the same campus.

IV. FINANCES

The collection of information on finances has been more difficult than on other aspects of a school's activities, because each university has its own method of counting and recording its receipts and expenditures of money. The hope has been expressed in many circles that a uniform accounting system will be developed (at least for reporting purposes) so that figures could be combined for all the schools and could thus provide a factual basis for further progress in professional education in public health. Some steps are being taken in this direction by one or more interested groups, but, pending an accepted format, the same items were outlined in the questionnaire as in prior years.

The fiscal cycles of the several universities are different too, and in previous years the financial reports of some schools were not ready in time. A space was included in this year's questionnaire, therefore, which allowed each school to indicate whether its figures were: final for the current year (6); estimated for the current year (7); or final for the previous year (1). (The figures show the number of schools replying in each category).

Regardless of the system used, accountants' reports invariably show that all the money received is expended in some way (perhaps some of it into a "reserve"), so that the totals of income and expenditures are equal. Only seven of the schools submitted financial statements that were balanced in this way, and these have been summarized in Tables 3a and 3b. Their average income (and expenditures) is $2,127,000 which is higher than that reported for last year, but not really comparable since only seven schools are involved. Other comments here are recognized as being applicable only to these seven schools, and comparison with last year's figures may not be valid, though interesting.

The income derived from research grants is 43% of the total this year. Last year 40% was reported, and the previous year 38%. The percentage derived from teaching grants remains about the same (28%), while that representing University appropriations seems to fluctuate: 14.5% this year as against 21.1% last year and 18.7% the year before.

For these seven schools, the percentage of expenditures for professional salaries is much lower than the figure reported last year (for 12 schools), namely 32.3% as against 45.1 and for the previous year - 41.5. On the other hand, overhead expenses have fallen this year to 6.0% as compared to 8.3% last year and 10.9% the year before.

Table 3a--Seven Schools of Public Health: 1961-1962

Income

	amount	percentage
Appropriated by University	$ 2,157,600	14.5
Income from Endowments	1,153,121	7.7
Tuition Fees	494,522	3.3
Teaching and Training Grants	4,179,212	28.1
Research Grants	6,429,461	43.2
Income from Services and Contracts . . .	416,353	2.8
Other Income	60,325	0.4
	$14,890,594	100.0

Table 3b--Seven Schools of Public Health: 1961-1962

Expenditures

	amount	percentage
Professional Salaries	$ 4,814,834	32.3
Non-Professional Salaries	3,904,861	26.2
Travel Allowances and Expense Accounts .	361,451	2.4
Equipment and Supplies	2,467,957	16.6
Administrative and Maintenance Expenses .	885,604	6.0
Other Expenditures	2,455,887	16.5
	$14,890,594	100.0

V. FACULTY

Through modification of the permanent roster of faculty members, done by the schools themselves, the total number has increased to 1648. This includes part-time teachers and preceptors, as well as teaching assistants, teaching fellows, and the like. A comparison of median ages for this year and last may be of interest, as shown in Table 4a. While the figures may not be significant, there is a decrease in median age for each rank as compared with last year. This is evident among both males and females. The distribution by age, sex, and title is shown in Table 4b.

Table 4a--Schools of Public Health: 1961-62 (and 1960-61)

Median Ages of Male and Female Professors, Associate Professors, and Assistant Professors

	Male		Female	
	this year	last year	this year	last year
Professors	52.3	52.2	60.0	60.plus
Associate Professors	44.3	45.0	52.0	52.5
Assistant Professors	38.2	39.5	44.5	45.5

* * * * * *

In Table 5, the faculty members are presented by age and subject taught. When compared to last year's figures, it will be seen that the number of teachers in each subject has increased. It should be noted that subjects taught does not necessarily correspond to organizational units, though in many instances they are the same.

Table 4b--Schools of Public Health: 1961-1962--Age and Sex of Faculty Members by Title

Age	Professors	Associate Professors	Assistant Professors	Lecturers Instructors	Other	Total
Male						
Not stated	4	3	2	4	3	16
Under 30	-	-	9	11	47	67
30-34	-	9	36	38	53	136
35-39	6	30	56	63	46	201
40-44	22	65	39	70	28	224
45-49	42	44	19	78	18	201
50-54	55	38	12	62	12	179
55-59	37	11	7	63	4	122
60 and over	49	16	3	60	4	132
Total: Male	215	216	183	449	215	1278
Female						
Not stated	-	1	1	4	7	13
Under 30	-	-	-	3	15	18
30-34	-	-	4	12	18	34
35-39	-	1	13	10	24	48
40-44	1	6	14	27	16	64
45-49	4	7	17	17	14	59
50-54	4	14	7	19	16	60
55-59	4	9	7	15	5	40
60 and over	13	7	1	10	3	34
Total: Female	26	45	64	117	118	370
TOTAL: Both sexes	241	261	247	566	333	1648

Table 5--Schools of Public Health, 1961-1962--
Age of Faculty Members, by Subject Taught

Subject	Age not stated	under 30	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 and over	Total
Administration or practice of public health	-	2	6	18	20	25	26	18	27	142
Behavioral and social sciences	-	5	9	13	12	11	5	4	-	59
Biostatistics	5	18	15	17	17	21	13	5	4	115
Chronic Diseases	-	-	3	3	6	5	5	3	5	30
Dental Public Health	-	2	-	2	3	1	1	5	7	21
Environmental Health	2	15	13	12	16	29	10	10	17	124
Epidemiology	1	4	19	31	18	20	18	13	11	135
Health Education	1	2	6	8	9	11	11	3	9	60
Hospital Administration	5	3	12	20	26	23	31	15	17	152
Maternal and Child Health	-	-	7	7	21	13	12	14	8	82
Medical Care	-	2	4	7	13	14	10	6	5	61
Mental Health	3	-	4	6	19	11	10	10	4	67
Microbiology & Laboratory Public Health	-	5	14	23	25	10	14	10	7	108
Nutrition, Biochemistry	2	9	15	21	23	13	18	5	9	115
Occupational Health	-	2	7	19	18	22	18	13	16	115
Physiological Hygiene	1	3	5	6	9	3	6	3	6	42
Public Health Nursing	6	2	2	5	9	8	8	13	7	60
Radiation Health	-	6	9	11	6	3	2	-	-	37
Tropical Medicine; Entomology; Parasitology	2	5	17	15	17	12	12	8	3	91
Other Subjects	1	-	3	5	1	5	9	4	4	32
TOTAL	29	85	170	249	288	260	239	162	166	1648

The numbers of teachers in the several academic ranks are shown in Table 6 by full-time/part-time status. While the numbers in the several categories have increased, the proportions are practically identical to those reported last year.

Table 6--Schools of Public Health: 1961-1962--
Faculty Titles by Full-Time: Part-Time Status

		Part-Time			
	Full-Time	Primarily in University	Primarily outside University	Emeritus	Total
Professors	155	43	34	9	241
Associate Professors	152	51	57	1	261
Assistant professors	153	40	54	-	247
Lecturers and instructors	98	104	363	1	566
Others	227	20	86	-	333
TOTAL	785	258	594	11	1648
(percentage)	(47.6%)	(15.6%)	(36.0%)	(0.7%)	(100.0)

* * * * * *

Full-time/part-time status, by the several subjects, is shown in Table 7. The total number of faculty members in each subject has increased since last year, and there are more full-time teachers in each subject with the exception of one (Occupational Health).

In Table 8, the various professional categories of faculty members are presented by title. Although increases in numbers may be noted, the percentage representation of the several professional categories remains about the same as compared with last year. For a few of the larger categories, the percentages are as follows (last year's is given first): physicians - 36.8, 36.3; bacteriologists - 7.4, 6.7; statisticians - 7.0, 6.5; administrators - 5.2, 6.4; engineers - 5.6, 5.6; behavioral scientists - 5.3, 5.3; nurses - 5.4, 5.0; chemists - 3.4, 4.2; and educators - 4.1, 3.8. The fact that physicians comprise

Table 7--Schools of Public Health: 1961-1962--Faculty Members by Full-Time: Part-Time Status and Subject Taught

Subject	Full-Time	Part-Time		Emeritus	Total
		Primarily in University	Primarily outside University		
Administration or practice of public health	48	13	79	2	142
Behavioral and social sciences	29	15	15	-	59
Biostatistics	87	3	24	1	115
Chronic Diseases	15	1	14	-	30
Dental Public Health	3	9	8	1	21
Environmental Health	58	20	46	-	124
Epidemiology	85	12	37	1	135
Health Education	29	5	25	1	60
Hospital Administration	25	16	111	-	152
Maternal and Child Health	32	23	26	1	82
Medical Care	41	-	20	-	61
Mental Health	26	19	22	-	67
Microbiology & Laboratory Public Health	48	43	15	2	108
Nutrition, Biochemistry	71	12	32	-	115
Occupational Health	38	19	58	-	115
Physiological Hygiene	25	9	8	-	42
Public Health Nursing	32	3	24	1	60
Radiation Health	18	14	5	-	37
Tropical Medicine; Entomology; Parasitology	67	9	14	1	91
Other Subjects	8	13	11	-	32
TOTAL	785	258	594	11	1648

Table 8--Schools of Public Health: 1961-1962--
Faculty Members, by Title and Professional Category

Professional Category	Professors	Associate Professors	Assistant Professors	Lecturers; Instructors	Others	Total
physicians	127	102	83	212	75	599
bacteriologists; laboratory scientists; parasitologists	14	16	17	25	38	110
mathematicians; statisticians	21	14	19	21	32	107
administrators; hospital administrators	6	6	13	51	29	105
engineers	21	17	10	26	18	92
anthropologists; psychologists; sociologists	2	14	18	31	22	87
nurses	6	13	19	32	13	83
chemists; biochemists	11	14	14	10	20	69
educators; health educators	9	9	10	29	6	63
biologists; entomologists; zoologists	7	9	9	11	10	46
sanitarians	-	6	3	17	13	39
dietitians; nutritionists	2	5	4	17	8	36
social workers	-	4	6	13	13	36
dentists	5	2	1	15	1	24
physicists; health physicists	-	2	4	11	3	20
lawyers	-	6	3	9	1	19
veterinarians	4	1	1	6	5	17
physiologists	5	4	3	1	3	16
economists	1	4	-	5	1	11
additional*	-	13	10	24	22	69
TOTAL	241	261	247	566	333	1648

* The 69 "additional" represent: 5 accountants, 4 architects, 4 industrial hygienists, and 56 others.

the largest group in the faculties of public health emphasizes again the close relationship between medicine and public health.

The subjects taught by faculty members in a number of professional categories are listed in Table 9. No trends are readily discernible.

Current preoccupation with research, together with the relatively ready availability of grants for this purpose, has tended to distort the picture of teaching staffs in educational institutions. Many grant projects operating in schools of public health include persons of faculty rank who are supported entirely out of research funds. In some instances, these "soft money" faculty members contribute little to the teaching of students, though in published listings they are usually indistinguishable from their "regular" colleagues. Better methods for calculating the "teaching strength" of a school of public health, therefore, need to be developed.

VI. CURRICULUM

About half of the schools reported changes in the required courses for the M.P.H. degree, though in most instances only a change of title or catalog number was involved. In one case, a change referred to a modification of departmental responsibility and participation (and, presumably, emphasis) in a certain course, and in other schools changes were associated with inclusion into or removal from a "core" course.

The term "core" is used in at least two different meanings in schools of public health - as a synonym for <u>required</u> or for <u>combined</u>. In the first meaning, a course may retain its own catalog number, title, and content, but would be included as one of the "core" courses - meaning that degree candidates are required to take it. Sometimes when a course is required for several categories of students (or for different degrees) they are called "core" courses, whereas those which are required for only one category (or degree) are not known as "core" courses.

The other type of "core" course refers to a combination of offerings, generally given under the supervision of the Department of Public Health Practice, in which a number of faculty members participate. While serving to give a broad overview of public health, as is claimed for this kind of course, one distinct disadvantage lies in the tendency to limit the presentation of a subject to that which is included in the "core" course. A student may thus graduate from a school of public health with only, for example, a few hours of classroom exposure to such important subjects as Maternal and Child Health, Medical Care, Mental Hygiene, and Public Health Nursing. With the differences in meaning of the word "core", it should be dropped from the public health lexicon, and the deficiencies in the "combined" course rectified in some other way.

Table 9--Schools of Public Health: 1961-1962--Faculty Members by Professional Category and Subject Taught

Subject	physicians	bacteriologists	mathematicians, statisticians	admin.,hospital administrators	engineers	anthropologists, psychol.,sociol.	nurses	chemists	educ.hlth.educa.	biolog.entomol.	sanitarians	dietitians, nutritionists	social workers	dentists	physicists	Additional*	Total
Admin. or prac.,p.h.	102	-	1	4	1	9	3	-	3	-	-	1	5	-	-	13	142
Behav. and soc.sc.	1	-	-	-	-	35	-	-	-	1	-	1	18	-	-	3	59
Biostatist.	9	-	89	-	-	6	-	-	-	1	-	-	-	1	-	9	115
Chronic dis.	20	-	1	1	-	1	2	-	-	-	-	-	2	-	-	3	30
Dental p.h.	-	-	1	-	-	-	-	-	-	-	-	-	-	20	-	-	21
Environ.Hlth.	1	5	-	-	62	-	-	10	-	6	37	-	-	-	1	2	124
Epidemiology	90	12	9	-	-	3	2	3	-	4	-	-	-	3	-	9	135
Health Educ.	6	-	-	-	-	1	1	-	51	-	-	-	1	-	-	-	60
Hosp.Adm.	31	1	1	86	-	4	2	1	1	-	-	1	-	-	-	24	152
MCH	64	-	2	-	-	3	6	-	1	-	-	-	5	-	-	1	82
Medical Care	25	-	1	13	-	6	2	-	-	-	-	-	2	-	-	12	61
Mental Hlth.	42	-	-	1	-	13	6	-	-	-	-	-	2	-	-	3	67
Microb.&Lab., P.H.	31	62	-	-	-	-	-	4	-	3	-	-	-	-	-	8	108
Nutr.,Bioch.	36	1	-	-	-	1	-	40	-	-	-	33	1	-	-	3	115
Occup. Hlth.	65	3	1	-	26	2	2	5	1	-	2	-	-	-	1	7	115
Physio.Hyg.	22	-	1	-	-	1	-	2	-	2	-	-	-	-	1	13	42
P.H. Nursing	1	-	-	-	-	1	57	-	-	1	-	-	-	-	-	-	60
Radiation H.	9	-	-	-	3	-	-	2	-	2	-	-	-	-	17	4	37
Trop. med., entomology, parasit.	36	26	-	-	-	-	-	2	-	24	-	-	-	-	-	3	91
Other Subj.	8	-	-	-	-	1	-	-	6	2	-	-	-	-	-	15	32
TOTAL	599	110	107	105	92	87	83	69	63	46	39	36	36	24	20	132	1648

* The 132 "additional" professional categories consisted of 19 lawyers, 17 veterinarians, 16 physiologists, 11 economists, 5 accountants, 4 architects, 4 industrial hygienists, and 56 others.

One of the criticisms often expressed about graduate education in public health refers to the lack of "standardization" of degrees, especially at the Master's level. Specifically, the problem is that of the existence of several degrees for one curriculum; for example, in Health Education a student may get M.P.H. or M.S.P.H. or M.P.H.Ed. or M.S.Hyg., depending on which school he attends. This occurs even though the curricula are similar, and differ from each other no more than should be expected in dealing with several institutions. The same problem exists in Hospital Administration, Sanitary Science, and others. If the profession is to be considered as having "come of age," then corrective steps are indicated soon.

During the year 1961-62, the schools of public health added 163 courses which had not been given in the previous year, and also dropped 52 courses from their offerings. An enumeration by subject of instruction is shown in Table 10. All subjects showed a net gain in number of courses, but any interpretation from an educational point of view is difficult to formulate.

The question of field training for periods beyond the school year has been a troublesome problem for some time. For several categories of students, additional time is required in field experience before the degree is awarded. In hospital administration, this period is one year; for health educators, three months are generally required, and some schools say that a similar period is spent by those in other categories with limited experience. A determination of the quality of field training received during this post-academic period has not been made, but many such experiences are now conducted under competent supervision by preceptors who are in turn guided by the faculty of the school. Practical experience <u>during</u> the academic year is now being studied carefully by the schools in an attempt to improve the quality of such training.

VII. STUDENTS

A total of 1631 students was reported as registered in the fourteen schools of public health in the year 1961-62. This included both undergraduate and graduate students, almost all of whom were in full-time attendance. A few of this number were registered primarily in another part of the university and followed part of their studies in the school of public health. Furthermore, some students were slated for a one-year curriculum, others for two or more, so that figures presented on the basis of registration would not be meaningful. Instead all the ensuing data refer to the 802 students who received graduate degrees between July 1, 1961 and June 30, 1962.

Table 10--Schools of Public Health in the U.S. and Canada:1961-62--
Courses Added and Subtracted

Subject	no. of Additions	no. of Subtractions
Administration or Practice, P.H.	3	1
Behavioral and Social Sciences	7	2
Biostatistics	22	6
Chronic Diseases	8	2
Environmental Health	13	7
Epidemiology	14	9
Maternal and Child Health	6	3
Medical Care	7	-
Mental Health	9	2
Microbiology & Laboratory, P.H.	10	4
Nutrition, Biochemistry	25	4
Occupational Health	3	2
Public Health Nursing	6	1
Radiation Health	5	3
Tropical Medicine, Entomology, Parasitology	6	3
Other Subjects	19	3
TOTAL	163	52

First, a look at the admissions and acceptances would be in order. Table 11 presents figures from twelve schools who supplied information on applications and acceptances for several professional categories (graduate studies only). Comparisons with last year's figures show that the "acceptance rate" has fluctuated considerably in some categories. Any identification of a trend in this respect is not possible yet, nor is it possible to formulate the relationship between "supply" and "demand" of public health personnel in the several professional categories. One comment that was repeated several times referred to the inadequate background (academic and otherwise) of applicants, which might indicate that the "supply" of suitable candidates does not yet strain the schools' facilities. On the other hand, some schools say they limit the student body in accordance with the size of their faculty and other facilities. At any rate, the need for additional schools of public health is not yet clearly in evidence.

In Table 12, the degrees awarded by the fourteen schools are listed for both graduate and undergraduate students. Only the former are analyzed in the remainder of the tables in this section.

The geographic distribution of the 802 graduates is shown in Table 13. Of these 69.7% were from the United States, 8.7% from Canada, and 21.6% from other countries. The latter figure compares with 19.2 of last year and 20.9 the previous year. For the several professional categories, physicians, as in previous years, are the most numerous, accounting for 37.8% of all those receiving graduate degrees. A comparable figure for last year is 35.2%.

In Table 14, degrees obtained, age, and sex are shown. The largest proportion of degrees (70.1%) fall under the M.P.H. and equivalent category, which compares to 73.0% of a year ago. Omitting the baccalaureate degrees of last year, the proportion of women is seen to have decreased from 27.8% to 22.7%. The median age for women graduates is 33.6 years and for men 33.3 years.

Table 15 shows the major subjects by degrees awarded. A comparison with previous figures should take into account the fact that undergraduates are not included this year. No great differences are noted.

In Table 16, the sponsoring agencies and professional categories are listed. One of the important points to be noted is the increasing assistance given to students in public health by the traineeship program of the U. S. Public Health Service An appreciable increase is likewise seen in the proportion of graduates sponsored by their own employing agencies.

Table 17 shows the professional categories of graduates by major subject. No important changes seen to have occurred in the internal "cells" of this table.

Table 11--Schools of Public Health:1961-62

	Applications and Acceptances		
	Applied	Accepted	%Acceptance
Statisticians	114	88	77.2
Physicians	550	423	76.9
Nutritionists	88	65	73.9
Nurses	186	130	69.9
Health educators	341	235	68.9
Engineers	47	32	68.1
Dentists	79	49	62.0
Sanitarians	199	123	61.8
Biologists, Medical technologists, Microbiologists, Parasitologist, etc.	123	74	60.2
Veterinarians	49	27	55.1
Chemists, Biochemists	35	19	54.3
Hospital administrators	307	93	30.3
Others	156	107	68.6
TOTAL	2274	1465	64.4

Table 12--Schools of Public Health--

and Degrees Awarded in 1961-1962

	M.P.H. D.P.H.	M.S.P.H. M.S.Hyg.	M.H.A. D.H.A.	Other Master's	Dr. P.H.	Sc.D. Hyg.	Other Dr's.	Total Grad. Degrees	(Undergraduate)
Michigan	112	-	-	-	1	-	-	113	(6)
N. Carolina	65	38	-	-	1	-	2	106	(15)
California (Berkeley)	90	-	-	-	3	-	2	95	(32)
Harvard	47	28	-	-	2	5	-	82	-
Minnesota	31	-	26	10	-	-	2	69	(30)
Toronto	40	-	15	11	-	-	-	66	-
Columbia	35	28	-	-	2	-	-	65	-
J. Hopkins	40	4	-	1	3	3	-	51	-
Pittsburgh	20	19	-	-	-	2	-	41	-
Puerto Rico	19	12	-	-	-	-	-	31	(18)
Tulane	28	-	-	-	2	-	-	30	-
Montreal	9	6	6	-	-	-	-	21	(96)
Calif.(L.A.)	11	-	-	6	-	-	-	17	(14)
Yale	15	-	-	-	-	-	-	15	-
TOTAL	562	135	47	28	14	10	6	802	(211)

Table 13--Geographic Distribution of Graduates from Schools of Public Health: 1961-1962 by Professional Category

States, Provinces, and Countries	physician	administrator	educator	nurse	sanitarian	engineer	bacteriologist	dentist	statistician	veterinarian	additional*	Total
Alabama	1	-	1	-	-	-	-	2	-	-	1	5
Alaska	-	-	-	-	-	-	1	-	-	-	-	1
Arkansas	2	-	1	-	-	-	-	-	-	1	1	5
California	27	10	12	2	6	2	3	2	2	-	1	67
Colorado	1	-	-	1	1	-	-	-	-	-	1	4
Connecticut	-	3	-	2	-	-	-	-	-	-	1	6
Dist. of Col.	-	1	-	-	-	-	-	-	-	-	-	1
Florida	2	-	1	-	1	1	1	-	-	-	2	8
Georgia	-	-	2	-	1	2	1	-	-	1	1	8
Hawaii	2	-	1	1	-	-	1	-	-	1	-	6
Idaho	-	1	-	-	-	-	1	1	-	-	-	3
Illinois	6	2	1	-	-	1	-	-	2	-	1	13
Indiana	-	-	-	1	-	-	1	-	-	-	1	3
Iowa	2	-	-	3	-	-	-	-	-	-	-	5
Kansas	1	1	-	-	-	2	-	-	-	-	-	4
Kentucky	2	1	2	-	2	-	1	-	-	-	-	8
Louisiana	2	1	-	2	1	-	-	-	-	-	1	7
Maryland	6	-	-	2	-	-	-	-	1	-	3	12
Massachusetts	7	5	1	1	-	1	-	1	1	-	7	24
Michigan	7	-	2	4	4	1	1	-	2	1	5	27
Minnesota	-	15	1	7	3	2	-	1	3	-	1	33
Mississippi	3	-	1	-	-	-	-	-	-	-	1	5
Missouri	1	3	-	-	1	1	1	-	1	-	2	10
Montana	1	-	-	-	-	1	-	-	-	-	-	2
Nebraska	-	-	-	-	-	-	-	-	-	-	1	1
Nevada	-	-	-	-	-	-	-	-	-	-	1	1
New Hampshire	1	-	-	-	-	-	-	-	-	-	-	1
New Jersey	5	1	-	1	1	3	-	1	-	-	2	14
New Mexico	-	1	-	2	2	-	1	-	-	-	1	7
New York	18	11	4	14	2	2	1	3	6	-	6	67
North Carolina	4	-	5	5	3	2	4	3	2	-	4	32
North Dakota	-	-	-	1	-	-	-	-	1	-	-	2
Ohio	2	1	3	3	2	-	1	1	-	4	2	19
Oklahoma	1	-	-	-	-	-	-	-	-	-	1	2
Oregon	2	-	1	-	2	1	-	-	-	-	-	6

(continued)

(Table 13--Continued)

	physi-cian	adminis-trator	educator	nurse	sanitar-ian	engineers	bacterio-logist	dentist	statis-tician	veteri-narian	addi-tional*	Total
Pennsylvania	2	9	-	6	4	3	2	-	1	1	7	35
Puerto Rico	8	1	5	-	3	-	-	-	1	-	1	19
Rhode Island	1	-	-	1	1	-	-	-	-	-	-	3
South Carolina	4	-	1	-	1	-	-	-	-	-	-	6
South Dakota	-	1	-	-	2	1	-	-	-	-	-	4
Tennessee	10	-	1	-	-	1	-	4	-	-	-	16
Texas	4	2	1	-	-	1	-	1	-	1	-	10
Utah	2	1	-	1	-	-	-	-	-	-	-	4
Vermont	-	1	-	-	-	-	-	-	-	1	-	2
Virginia	2	-	-	-	1	-	2	1	-	-	4	10
Virgin Islands	-	1	-	-	-	-	-	-	-	-	-	1
Washington	3	3	1	-	3	-	-	1	-	1	2	14
West Virginia	1	-	-	-	1	1	-	-	1	-	1	5
Wisconsin	2	-	1	2	-	-	1	-	-	-	2	8
Wyoming	-	-	-	-	1	-	1	-	-	-	1	3
Total-U.S.A.	145	76	49	62	49	29	25	22	24	12	66*	559
Canada												
Alberta	1	-	-	-	-	-	-	1	-	-	-	2
British Columbia	3	1	-	1	-	1	-	1	-	-	-	7
Manitoba	3	1	-	1	-	-	-	1	-	-	-	6
New Brunswick	1	-	-	-	-	-	-	-	-	-	-	1
Newfoundland	1	1	-	-	-	-	-	-	-	-	-	2
Nova Scotia	1	-	-	-	-	-	-	-	-	-	-	1
Ontario	7	5	-	-	-	6	3	2	-	1	3	27
Quebec	12	2	3	-	-	-	1	-	-	1	1	20
Saskatchewan	3	-	-	-	-	-	-	1	-	-	-	4
Total-Canada	32	10	3	2	-	7	4	6	-	2	4**	70

* Note: The 66 "additional" includes: 11 physicists; 10 nutritionists; 9 social workers; 7 behavioral scientists; 7 chemists; 7 industrial hygienists; 4 biologists; and 11 others.

** Note: The 4 "additional" includes: 2 nutritionists; 1 economist; 1 physiologist.

Table 13--Continued)

	physician	administrator	educator	nurse	sanitarian	engineer	bacteriologist	dentist	statistician	veterinarian	additional*	Total
Other Countries												
Algeria	1	-	-	-	-	-	-	-	-	-	-	1
Argentina	2	-	-	-	-	-	-	-	-	-	-	2
Australia	1	-	-	-	-	-	-	-	-	-	-	1
Belgium	3	-	-	-	-	-	-	-	-	-	-	3
Bolivia	3	-	-	-	1	-	-	-	-	-	-	4
Burma	1	-	1	-	-	-	-	-	-	-	-	2
Ceylon	2	-	-	-	-	-	-	-	-	-	-	2
Chile	-	-	-	-	-	-	-	-	-	-	1	1
China	4	-	1	-	-	1	1	1	-	-	1	9
Congo	-	-	2	-	-	-	-	-	-	-	-	2
Colombia	1	-	3	-	-	1	-	1	-	-	-	6
Costa Rica	-	-	-	-	-	-	1	-	-	-	-	1
Denmark	1	-	-	-	-	-	-	-	-	-	-	1
Dominican Rep.	1	-	-	-	-	-	-	-	-	-	-	1
Ecuador	-	-	1	-	-	-	-	-	-	-	-	1
Egypt	5	-	-	-	-	-	-	-	-	-	-	5
Finland	-	-	-	-	-	-	-	-	-	-	2	2
France	1	-	-	-	-	-	-	-	-	-	-	1
Germany	1	-	-	-	-	-	-	-	-	-	-	1
Ghana	1	-	-	-	-	-	-	-	-	-	-	1
Greece	1	-	-	-	-	-	-	-	-	-	-	1
Guatemala	3	-	-	-	-	1	-	-	-	-	-	4
Haiti	1	-	-	-	-	-	-	-	-	-	-	1
India	13	-	-	-	-	1	-	-	4	-	1	19
Indonesia	12	-	-	-	-	-	-	-	-	-	-	12
Iran	3	-	-	-	-	-	-	1	-	-	-	4
Iraq	2	-	-	-	-	-	-	-	-	-	1	3
Ireland	1	-	-	-	-	-	-	-	-	-	-	1
Israel	3	-	-	-	-	-	-	-	-	-	-	3
Italy	1	-	-	-	-	-	-	-	-	-	-	1
Japan	1	-	-	-	-	-	-	-	-	-	-	1
Jordan	1	1	-	-	-	-	-	-	-	-	-	2
Korea	5	-	1	-	-	-	-	-	-	-	-	6
Liberia	-	-	1	-	-	-	-	-	-	-	-	1
Nepal	1	-	-	-	-	-	-	-	-	-	-	1

(continued)

(Table 13--Continued)

	physician	administrator	educator	nurse	sanitarian	engineer	bacteriologist	dentist	statistician	veterinarian	additional*	Total
Netherlands	1	-	-	-	-	-	-	-	-	-	-	1
Nicaragua	2	-	-	-	-	-	-	-	-	-	1	3
Nigeria	-	-	1	-	-	-	-	-	-	-	-	1
Norway	1	-	-	-	-	-	-	-	-	-	-	1
Pakistan	2	-	-	-	-	-	1	-	1	-	-	4
Panama	3	-	-	-	-	-	-	-	-	-	-	3
Peru	2	-	-	-	-	1	-	-	-	-	-	3
Philippines	2	-	-	-	-	-	-	-	-	-	2	4
Portugal	1	-	-	-	-	-	-	-	-	-	-	1
Spain	2	-	-	-	-	-	-	-	-	-	-	2
Surinam	3	-	-	-	-	-	-	-	-	-	-	3
Sweden	1	-	-	-	-	-	-	-	-	-	-	1
Switzerland	2	-	-	-	-	-	-	-	-	-	-	2
Syria	1	-	-	-	-	-	-	-	-	-	-	1
Thailand	7	-	-	-	-	-	-	1	-	-	-	8
Turkey	3	-	-	-	-	-	-	-	-	-	-	3
Un.of So.Afr.	6	-	-	-	-	-	-	-	-	-	-	6
Uruguay	1	-	-	-	-	1	-	-	-	-	1	3
Venezuela	3	-	-	-	-	2	-	-	-	-	-	5
VietNam	1	-	-	-	-	-	-	-	-	-	-	1
Yugoslavia	1	-	-	-	-	-	-	-	-	-	-	1
Africa, other	3	1	-	-	-	-	-	-	-	-	-	4
America,other	1	-	1	-	-	-	-	-	-	2	-	4
Asia, other	1	-	-	-	-	-	-	-	-	-	-	1
Total-Other Countries	126	2	12	-	1	8	3	4	5	2	10*	173
TOTAL-All Countries	303	88	64	64	50	44	32	32	29	16	80	802

* Note: The 10 "additional" includes: 3 nutritionists; 2 chemists; and 5 others.

Table 14--Graduates of Schools of Public Health: 1961-1962

by Age and Sex and by Degree Granted

Sex and Age	DEGREES M.P.H. D.P.H.	M.S.P.H. M.Sc.Hyg.	M.Hosp. Adm.	Other Master's	Dr.P.H.	Sc.D. Hyg.	Other Dr's.	Total
Under 25	7	6	1	1	-	-	-	15
25-29	64	39	21	9	-	3	-	136
30-34	145	25	12	8	3	2	3	198
35-39	95	22	4	1	6	1	2	131
40-44	70	4	8	-	3	2	-	87
45-49	28	2	-	-	-	2	-	32
50-54	14	2	-	1	-	-	-	17
55 and over	4	-	-	-	-	-	-	4
Total:Male	427	100	46	20	12	10	5	620
Under 25	-	5	-	2	-	-	-	7
25-29	29	12	1	1	-	-	-	43
30-34	38	4	-	1	1	-	-	44
35-39	21	7	-	3	-	-	-	31
40-44	22	5	-	1	-	-	-	28
45-49	16	2	-	-	1	-	1	20
50-54	8	-	-	-	-	-	-	8
55 and over	-	-	-	-	-	-	-	-
Not stated	1	-	-	-	-	-	-	1
Total:Female	135	35	1	8	2	-	1	182
TOTAL: MALE & FEMALE	562	135	47	28	14	10	6	802

Table 15--Graduates from Schools of Public Health: 1961-1962

by Major Subject and Degree Granted

Major Subject	DEGREES M.P.H. D.P.H.	M.S.P.H. M.S.Hyg.	M.Hosp. Adm.	Other Master's	Dr. P.H.	Sc.D. Hyg.	Other Dr's.	Total
Admin. or practice of p.h.	132	6	-	1	2	-	-	141
Aviation Med.	22	-	-	-	-	-	-	22
Behav. and Social Sciences	3	-	-	-	-	-	-	3
Biostatistics	15	14	-	4	1	2	1	37
Chronic Dis.	9	-	-	-	1	-	-	10
Dental P.H.	22	-	-	-	-	-	-	22
Environmental H.	46	23	-	10	1	-	1	81
Epidemiology	39	4	-	-	6	1	3	53
Health Educa.	56	17	-	-	1	-	1	75
Hosp.Adminis.	20	20	47	3	-	-	-	90
Mat.&Child Hlth.	36	1	-	1	1	-	-	39
Medical Care	8	2	-	-	-	-	-	10
Mental Health	5	7	-	-	-	1	-	13
Microbiology & Lab. P.H.	25	6	-	1	-	1	-	33
Nutr.,Biochem.	10	15	-	1	-	2	-	28
Occup. Health	19	4	-	3	-	2	-	28
P.H. Nursing	48	-	-	1	-	-	-	49
Radiation Hlth.	10	10	-	3	-	-	-	23
Teaching of Preventive Med.	5	-	-	-	1	-	-	6
Tropical Med.; Entomology; Parasitology	25	5	-	-	-	1	-	31
Veterinary P.H.	5	-	-	-	-	-	-	5
Other Subjects	2	1	-	-	-	-	-	3
TOTAL	562	135	47	28	14	10	6	802

Table 16--Graduates from Schools of Public Health: 1961-1962
by Sponsoring Agency and Professional Category

Sponsorship	PROFESSIONAL CATEGORY											
	physician	administrator	educator	nurse	sanitarian	engineer	bacteriologist	dentist	statistician	veterinarian	additional*	Total
Own Employing Agency	90	5	9	7	12	18	7	6	2	2	7	169
U.S.P.H.S.	87	15	36	44	30	11	13	19	18	7	38	318
I.C.A.	34	-	9	-	1	3	-	-	1	-	2	50
Other U.S. Government Agencies	9	7	-	1	-	2	1	-	-	1	9	30
W.H.O.	26	1	3	-	-	5	-	-	2	-	2	39
Fund or Foundation	18	1	-	2	-	-	-	-	1	-	4	26
Self-Sponsored	29	57	5	9	7	5	10	5	4	2	16	149
Other	10	2	2	1	-	-	1	2	1	-	2	21
TOTAL	303	88	64	64	50	44	32	32	29	16	80	802

* Note: The 80 "additional" include: 15 Nutritionists; 11 Physicists; 9 Chemists; 9 Social Workers; 8 Behavioral Scientists; 7 Industrial Hygienists; 4 Biologists; 4 Pharmacists; 3 Physiotherapists; and 10 others.

Table 17--Graduates of Schools of Public Health: 1961-1962
by Major Subject and Professional Category

Major Subject	PROFESSIONAL CATEGORY											
	physician	administrator	educator	nurse	sanitarian	engineer	bacteriologist	dentist	statistician	veterinarian	additional*	Total
Adminis. or practice,p.h.	112	9	2	2	4	-	-	7	-	-	5	141
Aviation Med.	22	-	-	-	-	-	-	-	-	-	-	22
Behav. and social sc.	-	-	-	-	-	-	-	-	-	-	3	3
Biostatistics	6	-	-	1	-	-	-	-	29	-	1	37
Chronic Dis.	7	-	-	-	-	-	-	-	-	-	3	10
Dental P.H.	-	-	-	-	-	-	-	21	-	-	1	22
Environ.Hlth.	-	-	1	-	42	32	2	-	-	-	4	81
Epidemiology	34	-	-	-	-	-	2	3	-	7	7	53
Health Educ.	8	-	59	3	3	-	-	-	-	-	2	75
Hosp.Admin.	8	75	-	3	-	-	-	-	-	-	4	90
Mat.&Child H.	33	-	-	4	-	-	-	-	-	-	2	39
Medical Care	3	4	1	-	-	-	-	1	-	-	1	10
Mental Health	9	-	1	-	-	-	-	-	-	-	3	13
Microb. & Lab., P.H.	8	-	-	-	-	-	20	-	-	3	2	33
Nutr.,Biochem.	10	-	-	-	-	-	-	-	-	-	18	28
Occup.Health	9	-	-	1	1	8	-	-	-	-	9	28
P.H. Nursing	-	-	-	49	-	-	-	-	-	-	-	49
Radiation Hlth.	3	-	-	-	-	4	-	-	-	1	15	23
Teaching of Prev.Medicine	6	-	-	-	-	-	-	-	-	-	-	6
Trop.Med.,Entom., Parasitology	23	-	-	-	-	-	8	-	-	-	-	31
Veterinary P.H.	-	-	-	-	-	-	-	-	-	5	-	5
Other Subjects	2	-	-	1	-	-	-	-	-	-	-	3
TOTAL	303	88	64	64	50	44	32	32	29	16	80	802

*Note: The 80 "additional" include: 15 Nutritionists; 11 Physicists; 9 Chemists; 9 Social Workers; 8 Behavioral Scientists; 7 Industrial Hygienists; 4 Biologists; 4 Pharmacists; 3 Physiotherapists; and 10 others.

VIII. CONTINUATION EDUCATION

For purposes of this inquiry, continuation education refers to post-graduate or refresher courses, conducted on a short-term basis, whether given at the school or extramurally under school auspices; not included are extension courses given for graduate credit or those which are organized through a central Continuation Education unit of the University. It is obvious, of course, that a large block of educational activities is thus omitted, and that the information presented here does not pretend to encompass all continuation education in public health and related subjects, nor even all that is done by universities.

Nine schools reported that they had conducted 66 such courses. Table 18 shows the principal subject categories and the "student-hours" for each. These figures represent an increase of 19 courses and 4,784 student-hours over the figures reported last year. The shifting of some of the subject groupings reflects a change of emphasis as determined, presumably, by the needs of the community.

Table 18--Schools of Public Health:1961-1962--

Continuation Education

Subject grouping	no. of courses	no. of student-hours
Environmental Health	7	13,740
Hospital Administration	7	13,117
Medical Care	7	11,894
Occupational Health and Accident Prevention	7	8,508
Infectious and Respiratory Diseases	3	7,685
International Health	2	7,650
Public Health Nursing	6	6,487
Public Health Administration	5	4,844
Maternal and Child Health	3	3,690
Radiation Health	4	3,688
Cancer	2	3,561
Nutrition	2	1,600
Mental Health	1	1,380
Health Education	3	1,249
Biostatistics	1	1,200
Dental Public Health	1	1,200
Geriatrics	1	1,155
Others	4	1,818
TOTAL	66	94,466

IX. SUMMARY AND COMMENTS

In response to an "open end" question, the Directors of the schools presented brief statements regarding outstanding needs and future plans. These responses are summarized here, under the same headings and in the same order as the material in the body of this report.

Administration. Only a few items are mentioned, referring to an increased burden carried by one school in being responsible for health services to a large population group, and, in another school, the expansion of one of its departments into three new departments.

Physical Plant. This has already been mentioned as a problem in practically all schools. One Dean mentions H.R.4999 as one of the hopes for increasing the available space in schools of public health.

Finances. Two problems were emphasized in this field, namely the desirability of increasing the proportion of "hard money", and the advantages of more flexible funds of a general support nature as opposed to specific project grants.

Faculty. Several schools reported the appointment of a number of faculty members, most of them to already established positions, but a few to newly created posts, as in International Health, Radiological Health, and others. One school expressed the wish that it could appoint more full-time people and reduce the responsibilities which have fallen on part-time staff.

Curriculum. Studies of current curricula are under way in a number of schools, and some changes have already been put into effect. One problem has been to provide the material needed by foreign students while at the same time giving the U.S.A. and Canadian students the training which would be most pertinent for them. Several schools report joint programs with other branches of the university, in one instance a School of Social Welfare, others with College of Education, School of Engineering, etc. One new two-year program is intended to train engineers for service in hospital and medical facilities.

Several schools are now planning residency programs in one or more phases of public health or preventive medicine.

Students. The discontinuance of baccalaureate programs in public health (in some schools) has presumably increased the facilities available for expansion of graduate student enrollment.

With support and cooperation of the schools of public health, the collection and publication of data should continue to point the way for further recognition of problems and their probable solutions.

Schools of Public Health
accredited by the American Public Health Association

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